LENS BODY WITH VARIABLE FOCUS AND CONTROLLING MECHANISM OF THE SAME

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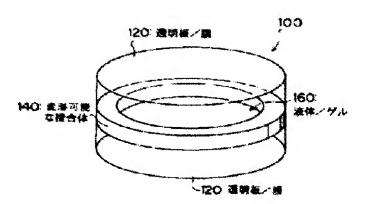
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Abstract of JP2001249202

PROBLEM TO BE SOLVED: To provide a lens with variable focus which can be easily driven and controlled. SOLUTION: The lens body with variable focus has a structure of a transparent liquid fluid or gel material 160 sealed to fill the space between two transparent films or plates 120. The peripheral part of the two transparent bodies 120 is joined with a deformable member 140. By adding force in the direction along the optical axis of the lens to the edge of the lens body 100, the distance (gap) between the two transparent bodies can be easily changed. The fluid 160 sealed in between the two transparent bodies 120 is substantially incompressible and its volume is constant even when the pressure added is changed. Therefore, when the distance in the edge of the two transparent bodies changes, the form of the transparent body changes according to the volume (constant) of the fluid between the two transparent bodies, which changes the curvature of the surface and the focal distance as an optical lens.



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